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Lieferung & Zahlungsart

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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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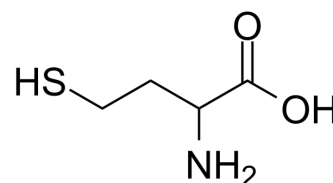
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DL-Homocysteine

Cat. No.:	HY-W040821		
CAS No.:	454-29-5		
Molecular Formula:	C ₄ H ₉ NO ₂ S		
Molecular Weight:	135.19		
Target:	Endogenous Metabolite		
Pathway:	Metabolic Enzyme/Protease		
Storage:	Powder	-20°C	3 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

H₂O : 41.67 mg/mL (308.23 mM; Need ultrasonic)

Concentration	Mass		
	1 mg	5 mg	10 mg
1 mM	7.3970 mL	36.9850 mL	73.9700 mL
5 mM	1.4794 mL	7.3970 mL	14.7940 mL
10 mM	0.7397 mL	3.6985 mL	7.3970 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

DL-Homocysteine is a weak neurotoxin, and can affect the production of kynurenic acid in the brain. DL-Homocysteine is correlated with Vitamin B12, renal functions and folate levels, affects the cross-sectional cognition indirectly through white matter microstructural integrity^[2].

IC₅₀ & Target

Human Endogenous Metabolite

In Vitro

DL-Homocysteine (0.1-0.5 mM) significantly enhances kynurenic acid (KYNA) production in rat cortical slices, and diminishes the production of at 3.0, 5.0, and 10.0 mM, with the estimated IC₅₀ of 6.4 (5.5-7.5) mM. DL-Homocysteine dose-dependently inhibits kynurenine aminotransferases I (KATI) activity at concentrations ≥0.2 mM, with an IC₅₀ of 0.566 (0.442-0.724) mM, and the activity of KAT II with IC₅₀ value of 8.046 (5.804-11.154) mM^[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

DL-Homocysteine (1.3 mmol/kg, i.p.) increases KYNA content (pmol/g tissue) from 8.47 ± 1.57 to 13.04 ± 2.86 and 11.4 ± 1.72 in cortex, and from 4.11 ± 1.54 to 10.02 ± 3.08 in rat hippocampus^[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Research Square Preprint. 2022 Jan.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Effects of Homocysteine on white matter diffusion parameters in Alzheimer's disease

[2]. DL-Homocysteine, et al. Dual effect of DL-homocysteine and S-adenosylhomocysteine on brain synthesis of the glutamate receptor antagonist, kynurenic acid. J Neurosci Res. 2005 Feb 1;79(3):375-82.

Caution: Product has not been fully validated for medical applications. For research use only.

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